Trend of Private Long-Term Debts, 1912-35

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ACCORDING to preliminary estimates, the volume of the private long-term debts in the United States covered by the investigation of the Bureau of Foreign and Domestic Commerce declined 13 percent from 1930 to 1935, that is, from a high of 84,500 million dollars in 1930 to 73,500 million at the end of 1935.[1] The major part of this reduction resulted from the forced liquidation of real-estate mortgages which were contracted during the preceding decade, but there was a reduction in each of the major economic divisions with the exception of the electric light and power and the manufactured gas industries. Interest payable on the private long-term obligations investigated reached a high of 4,882 million dollars in 1930 but declined by more than 17 percent to 4,035 millions by 1935.

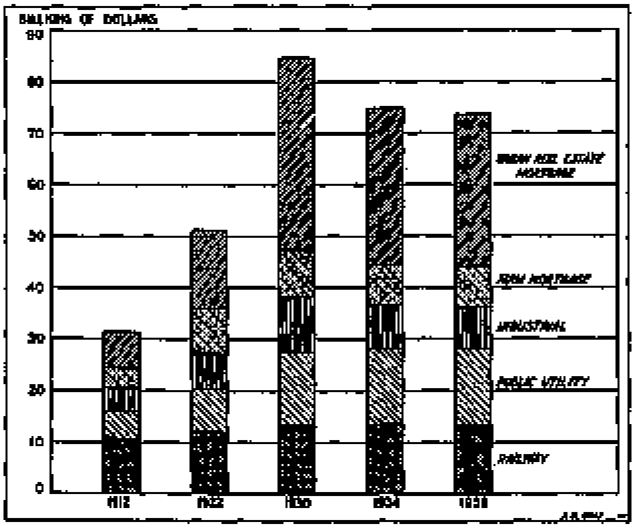

Figure 1.—Estimated private long-term debt, by major classes.

The following article constitutes a brief digest of the more important results of a study of the long-term debts in the United States recently completed by the Division of Economic Research of the United States Department of Commerce, supplemented by preliminary estimates for a more recent date than those for which data were available at the time the original report went to press.[2] For a comprehensive discussion of the concepts involved in these estimates and for detailed information with regard to each item, the reader is referred to the original publication.

The debt aggregates presented in this article consist, in the main, of those obligations maturing a year or more from the original date of issue. Debt held in the treasury of the issuing corporation is excluded, but it was deemed advisable and in certain instances found necessary to include all other debt held within a corporate system. In addition to these qualifications, it should be stated that the debt totals do not include either the debts of financial corporations or the long-term debts of individuals and unincorporated business enterprises which are not secured by real-estate mortgages. This latter omission results from the paucity of information which precludes the estimation of the probable amount. The former classification, however, is omitted because this type of debt is largely secured by bonds or mortgages already represented in the aggregates, and to this extent is nominal in character.

Growth of Long-Term Debts, 1912–30.

The aggregate amounts of private long-term debt, as measured in the study, increased by about 20 billion dollars in the 10-year period ended in 1922, and by more than 33 billions in the following 8 years. In each period the increase in mortgage[3] debt accounted for two-thirds of the increase in the total debt, with the result that this type of debt rose from 35 percent of the total in 1912 to 54 percent in 1930. The rise in mortgage debt during the earlier period was attributable in large part to the rapid growth in farm mortgages accompanying agriculture's war-time prosperity, whereas during the later 1920's there was no appreciable increase in the volume of farm mortgages. But the high level of activity in residential building in the years 1923 to 1928 formed the basis for a very rapid growth in the volume of urban mortgages and was largely instrumental in sustaining an average annual increase of almost 5 billion dollars in the aggregate long-term debt during these 6 years. This compares with an average increase of 2 billion dollars a year for the period 1912 to 1922. The increases in the debt total for the years 1929 and 1930 were relatively small because of the sharp decline in residential construction after 1928. The decline in other forms of construction was accelerated during 1931 and the same year witnessed a sharp

[1] The figures presented in this article are not offered as accurate measures of the debt aggregates. For some of the items, notably the urban mortgage debt, the margin of error is considerable and much of this bias may be carried into the aggregates. However, the probable margin of error in the totals for the later years is no more than 2 or 3 percent. Also, as noted in the discussion of concepts, certain items have been omitted because of the impossibility of securing accurate data.

It is believed that whatever inaccuracies exist in the data will exert a consistent bias from one period to another, and so have no important influence on the indicated trend.

[2] Copies of Long-Term Debts in the United States may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C., or from any district office of the U. S. Department of Commerce. The price is 20 cents.

[3] The term "mortgage debt" has here a somewhat limited connotation, being exclusive of a sizable volume of mortgages on industrial property which are commonly classified as industrial debt. In fact, most corporate bonds are secured by mortgages on the property of the debtor corporation and so might be loosely classified as mortgage debt. But in this study the common practice has been followed of defining as mortgage debt all such debt not owed by railway, utility, or industrial corporations.

increase in the number of real-estate foreclosures, so that the aggregate long-term debt experienced its first decline in 1931.

Depression Changes in the Long-Term Debt.

The information relating to urban real-estate mortgages is not sufficiently reliable to justify an annual estimate of the volume of such mortgages during the depression years and, therefore, in the original publication the aggregate private long-term debt was estimated only for the years 1930 and 1934; in this article the 1935 figure is tentative. It may be stated with confidence, however, that after attaining a maximum of 84.5 billion dollars in 1930, the aggregate declined in each of the next 5 years; at the end of 1935 it probably approximated 73.5 billions.

Table 1.—Private Long-Term Debts, 1912–35 (End of Year)

[Billions of dollars]

Class of debt	1912	1922	1930	1934	1935
Railway	10.7	11.9	[1] 13.4	[1] 13.4	[1] 13.3
Public utility	5.3	8.4	14.0	[2] 14.8	[2] 14.8
Industrial	4.6	6.8	10.8	[2] 8.6	[2] 8.1
Farm mortgages	3.8	8.9	9.1	7.8	[3] 7.8
Nonfarm home mortgage	7.0	15.2	22.3	17.7	[4] 17.1
Other urban real-estate debt			14.9	12.7	[4] 12.4
Total	31.3	61.2	84.5	76.0	73.5

[1] Includes the items "funded debt actually outstanding", "receivers' certificates", and "funded debt matured unpaid" as reported to the Interstate Commerce Commission.
[2] Preliminary estimates from sample data. Subject to revision on publication of "Statistics of Income" by the Bureau of Internal Revenue.
[3] Assumed no change from 1934.
[4] The basis for these estimates is given in the text.

For most of the economic divisions year-to-year estimates are possible, and these show widely varying trends in recent years. From data published by the Interstate Commerce Commission it has been calculated that the long-term debt of the steam railways increased from 13,033 million dollars in 1929 to 13,409 millions in 1930, reached a maximum of 13,506 millions in 1933, and thereafter declined slightly to 13,251 millions in 1935. The public utility debt rose from 12,943 million dollars in 1929 to a maximum of 15,108 millions in 1932, and then declined irregularly to approximately 14,800 million dollars in 1935. On the other hand, the growth in the industrial debt came to an end early in the depression; from a maximum of 10,800 million dollars in 1930 it declined steadily until by the end of 1935 it approximated the relatively low figure of 8,150 millions.

The drop in farm mortgages antedated the depression, official estimates of the Bureau of Agricultural Economics indicating a maximum value of 9.5 billion dollars for about the end of 1927 and a steady decline to 8.5 billions by the end of 1932. An unofficial estimate for 1934 places the volume of farm mortgages at 7,770 million dollars, and a recession during 1935 of 25 million dollars in the farm-mortgage holdings of banks, life-insurance companies, and Government-lending agencies suggests a somewhat lower figure for the end of that year. By virtue of the fact that the holdings of nonfarm mortgages by banks, life-insurance companies, and building and loan associations declined during 1931 for the first time since the turn of the century, the estimate of 37,234 million dollars for nonfarm mortgages in 1930 may safely be said to represent the highest year-end value ever reached by this type of debt. Each year following 1931 witnessed a further decline in the volume of urban mortgages until at the end of 1934 it stood at 30,424 millions. For 1935 the Home Owners' Loan Corporation's preliminary estimate of the volume of urban-home mortgages alone is 17,110 million dollars, 3½ percent below its 1934 estimate of 17,740 millions. If proper weight is given to the fact that the drop in the volume of home mortgages from 1930 to 1934 was relatively greater than

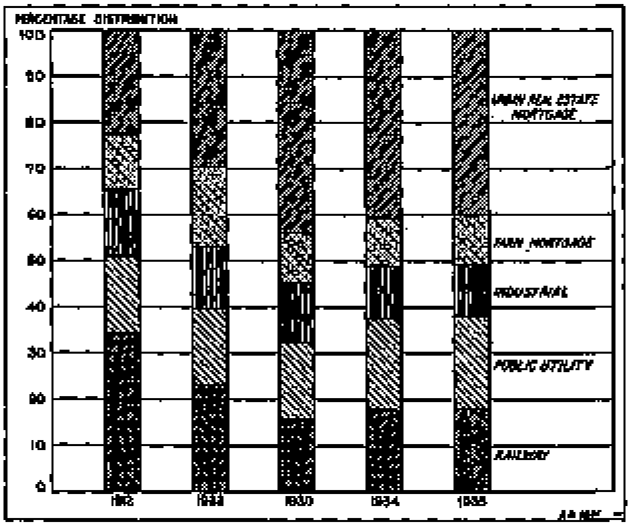

Figure 2.—Percentage distribution of estimated private long-term debt, by major classes.

that in other types of urban mortgages, the 1935 decline in the latter may be set at about 2½ percent, and the volume of nonfarm mortgages for the end of 1935 at 29.5 billion dollars.

Ownership of Evidences of Debt.

Banks, life-insurance companies, and trust institutions constitute the most important sources of long-term credit, the first two holding 28,463 million dollars of long-term obligations, or more than 35 percent of the aggregate in 1932. Actually, bank holdings are somewhat understated because the banks report their assets at their market value which in 1932, at least, was considerably below their face value. It is not possible to be so definite with regard to the holdings of trust institutions. The total assets of such institutions are believed to exceed considerably those of life-insurance companies, but a sizable proportion of such assets are known to be in the form of stock. In particular instances special agencies are important factors in long-term financing. Thus, in 1932 building and loan associations had 6,390 million dollars invested in urban mortgages and the Federal land banks had 1,106 millions in farm mortgages. Railways, other than the issuing corporations, held over 1 billion dollars of railway bonds and public-utility and industrial corporations held about 1,400 millions of one another's long-term obligations.

Table 2.—Private Long-Term Debt Held by Banks and Life-Insurance Companies, 1932 and 1935

[Millions of dollars]

Type of debt	Banks [1]		Life-insurance companies	
	1932	1935 [2]	1932	1935
Railway	2,421	2,300	3,110	5,027
Public utility	1,617	1,490	1,793	2,193
Industrial [3]	[illegible]	775	250	400
Farm mortgage	979	588	1,830	1,071
Urban mortgage	9,864	8,227	5,602	4,303
Total	16,906	13,329	12,565	10,980

[1] Figures are for June 30.
[2] Tentative estimates.
[3] Exclusive of industrial mortgages which are here necessarily classified as urban mortgages.

The changes that have taken place in the holdings of these institutional investors in recent years have been most significant in the case of mortgage debt. By the end of 1935, life-insurance holdings of farm mortgages had declined by 42 percent and bank holdings by 41 percent, while the credit agencies of the Federal Government had become the farmers' principal creditor, holding 2,854 millions in farm mortgages. Urban mortgages showed similar though less drastic movements. In the 3 fiscal years following 1932, bank and life-insurance company holdings of urban mortgages were reduced by 16 and 23 percent, respectively. These declines are explained in part by increases of 970 and 1,080 million dollars in real-estate holdings during this period and in part by the refinancing activities of the Home Owners' Loan Corporation which, as of December 31, 1935, had nearly 3 billion dollars invested in home mortgages. Throughout the depression, life-insurance companies as a whole continued to invest a larger portion of their assets in utility bonds. Otherwise there were no marked changes in the holdings of corporate bonds. Despite these shifts, banks and life-insurance companies held about 33 percent of the aggregate debt in 1935.

Interest Payable on Long-Term Debts, 1912–35.

The concept of "interest payable" as developed in this study is intended neither as a measure of the cost of capital, i. e., the "yield" on bonds or mortgages, nor of the volume of interest payments, but merely to indicate the amount of interest on long-term debt, the payment of which is called for by the debt contracts and the default of which will, under ordinary conditions, result in receivership or foreclosure. An interest total of this kind is useful principally to the extent that it gives an idea of the degree of rigidity in the national economy resulting from the existence of a large volume of long-term obligations bearing a fixed rate of interest; consequently, it is necessary to exclude such contingent items as amortization of debt discount and expense.

Relative to changes in the aggregate volume of debt, interest charges rose more rapidly during the 10 years 1912–22 and declined more rapidly during the years 1930–35, reflecting the rising interest rates of the war period and the easy money conditions of the later years of the depression. During the period of post-war prosperity there was a steady decline in interest rates on bonds and mortgages, but the relatively rapid growth in the volume of mortgages bearing a high rate of interest maintained the ratio of interest charges to debt at a constant figure. During the depression this situation was reversed with the result that the ratio dropped markedly, particularly in the period since 1933 which has been characterized by the refinancing of mortgages by Government agencies and later by the refunding of corporate bonds, especially those of public-utility corporations. The refunding of over a billion dollars in utility bonds during 1935 will result in an annual saving of about $12,000,000 to the companies involved. There was relatively little refunding by other types of corporations in 1935, but in 1936 the practice became general, and the annual savings effected by the refunding operations of these 2 years may be tentatively placed above 50 million dollars. Actually most of the refunded bonds were called at a substantial premium so that it will be several years before the transactions will yield a net saving.

Table 3.—Estimated Annual Interest Payable on Private Long-Term Debts, 1912–35

[Millions of dollars]

Type of debt	1912	1922	1930	1934	1935 [1]
Railway	429	540	619	616	610
Public utility	264	448	720	750	740
Industrial	245	414	601	471	469
Farm mortgage	232	568	545	400	380
Home mortgage	420	[illegible]	1,450	1,135	1,079
Other urban real-estate mortgage			941	785	768
Total	1,590	2,076	4,882	4,167	4,026

[1] Preliminary.

The space available for this article does not permit the discussion of other topics treated in "Long-Term Debts in the United States." Relief measures, defaults, and readjustments in connection with private debts, and also the subject of variations in the age of outstanding indebtedness, have been covered in some detail in the original report. The study was concerned primarily with private debts, but for the sake of completeness there was included a brief discussion of the indebtedness of the Federal Government and a somewhat more adequate consideration of State and local government debts. Those interested in any of these topics should consult the original publication.